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Attorney's Docket 7163-34

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Schaldach

Examiner: Unknown

Ser. No.: 10/021,899

Art Group: Unknown

Title: METHOD OF APPLYING A MARKER ELEMENT TO AN IMPLANT AND AN IMPLANT PROVIDED WITH A MARKER ELEMENT

Filed: 13 December 2001

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PRELIMINARY AMENDMENT

This Preliminary Amendment is filed with the missing parts in this case, which is based on German application 100 64 596.8, which was filed on 18 December 2000. The fees for the claims should be calculated based on the claims remaining after the entry of this Preliminary Amendment, which results in 36 total claims, 2 of which are independent. Consistent with the modifications to 37 CFR §1.121, the applicant has provided a clean copy of the claims as they stand after amendment.

Amendments to the Disclosure

None at this time. In order to introduce paragraph numbering and headings as are customary in U.S. practice, a clean copy of the specification pages identical to the verified translation is provided for examination purposes, under 37 CFR §1.125. No new matter is presented in the clean copy of the specification.

Amendments to the Figures

None at this time.

Amendments to the Claims

Please amend the claims as follows:

1. (amended) A method of applying a marker element [(6; 6'; 6"; 25; 25'; 26; 28)] to an implant [(1; 1'; 1"; 1'''; 20; 20'), in particular a stent,] intended for implantation in a [the] human or an animal body, said implant comprising a main body and an opening [(3; 3'; 3"; 3'''; 21; 21')] provided in said main body [(2; 2'; 2"; 2'''; 22; 22')] for receiving the marker element [(6; 6'; 6"; 25; 25'; 26; 28)], comprising the steps of:

introducing a hardenable material or material mix into the opening, and
hardening the hardenable material or material mix therein to form at least a part of the
marker element [characterised in that to form at least a part of the marker element (6; 6'; 6"; 25; 25';
26; 28) a hardenable material or material mix is introduced into the opening and hardened therein.

2. (amended) The [A] method of claim 1, wherein the material or material mix is [as set forth
in claim 1 characterised in that to form at least a part of the marker element (6; 6'; 6"; 25; 25') a
hardenable,] flowable or pourable [material or material mix is introduced into the opening and is
hardened therein].

3. (amended) The [A] method of claim 2, wherein [as set forth in claim 2 characterised in that]
the [flowable or pourable] material or material mix is a sinterable granular material or powder
[which is hardened in the opening by sintering].

4. (amended) The [A] method of claim 2, wherein the [as set forth in claim 2 or claim 3
characterised in that the flowable or pourable] material or material mix is joined and in particular
welded to the material of the main body [(2; 2'; 2"; 22; 22')] during the hardening step [process].

5. (amended) The [A] method of claim 1, wherein [as set forth in one of the preceding claims
characterised in that] the hardening step [process] includes an endothermic step and at least a part of
the process energy in the endothermic step is introduced locally in the region of the opening.

6. (amended) The [A] method of claim 5, wherein [as set forth in claim 5 characterised in that]
at least a part of the process energy in the endothermic step is introduced by targeted irradiation in
the region of the opening, in particular with laser radiation.

7. (amended) The [A] method of claim 5, wherein [as set forth in claim 5 or claim 6
characterised in that] at least a part of the process energy in the endothermic step is introduced by
ultrasound.

8. (amended) The [A] method of claim 1, wherein [as set forth in one of the preceding claims characterised in that] the hardening step [process] includes an endothermic step and at least a part of the process energy in the endothermic step is introduced electrically by producing a flow of current through the [flowable or pourable] material or material mix arranged in the region of the opening [(3; 3'; 3"; 21; 21')].

9. (amended) The [A] method of claim 1, wherein both the introducing step and the hardening step are [as set forth in claim 1 characterised in that introduction and hardening of the material or material mix is] effected by galvanic deposit.

10. (amended) The [A] method of claim 1, wherein the [as set forth in claim 1 characterised in that a cold-setting] material or material mix is cold-setting [, in particular amalgam, is used].

11. (amended) An implant [, in particular a stent,] for implantation in a [the] human or an animal body comprising a main body [(2; 2'; 2"; 2'''; 22; 22')], at least one opening [(3; 3'; 3"; 3'''; 21; 21')] in said main body [(2; 2'; 2"; 2'''; 22; 22')] and a marker element [(6; 6'; 6"; 25; 25'; 26; 28)] arranged in said opening [(3; 3"; 3'''; 21; 21')], characterised in that the marker element [(6; 6'; 6"; 25; 25'; 26; 28) at least partially] comprises a hardenable material or material mix which is introduced into the opening [(3; 3"; 3'''; 21; 21')] and hardened therein.

12. (amended) The [An] implant of claim 11, wherein [as set forth in claim 11 characterised in that] the marker element [(6; 6'; 6"; 25; 25'; 26; 28) at least partially] comprises a flowable or pourable material or material mix which is introduced into the opening [(3; 3'; 3"; 21; 21')] and hardened therein [, or a material or material mix which is introduced into the opening by galvanic deposit and hardened there].

13. (amended) The [An] implant of claim 12, wherein [as set forth in claim 12 characterised in that the flowable or pourable] material or material mix is sinterable and is hardened in the opening [(3; 3'; 3"; 21; 21')] by sintering.

14. (amended) The [An] implant of claim 11, wherein [as set forth in one of claims 11 through 13 characterised in that] the marker element [(6; 6'; 6"; 25; 25')] is joined and in particular welded to the material of the main body [(2; 2'; 2"; 22; 22')] by the hardening process.

15. (amended) The [An] implant of claim 11, wherein [as set forth in one of claims 11 through 14 characterised in that] the opening [(3; 3'; 3"; 21; 21')] and/or the marker element [(6; 6'; 6"; 25; 25')] and/or the arrangement thereof with respect to the main body [(2; 2'; 2"; 22; 22')] are adapted to] identify at least one property of the implant.

Please enter the following new claims:

16. (new) The method of claim 3, wherein the material or material mix is joined and in particular welded to the material of the main body during the hardening step.

17. (new) The method of claim 2, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

18. (new) The method of claim 3, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

19. (new) The method of claim 4, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

20. (new) The method of claim 16, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

21. (new) The method of claim 17, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

22. (new) The method of claim 18, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

23. (new) The method of claim 19, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

24. (new) The method of claim 20, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

25. (new) The method of claim 17, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

26. (new) The method of claim 18, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

27. (new) The method of claim 19, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

28. (new) The method of claim 20, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

29. (new) The method of claim 10, wherein the material or material mix is amalgam.

30. (new) The implant of claim 11, wherein the marker element comprises a material or material mix which is introduced into the opening by galvanic deposit and hardened there.

31. (new) The implant of claim 30, wherein the material or material mix is sinterable and is hardened in the opening by sintering.

32. (new) The implant of claim 12, wherein the marker element is joined and in particular welded to the material of the main body by the hardening process.

33. (new) The implant of claim 13, wherein the marker element is joined and in particular welded to the material of the main body by the hardening process.

34. (new) The implant of claim 12, wherein the opening and/or the marker element and/or the arrangement thereof with respect to the main body identify at least one property of the implant.

35. (new) The implant of claim 13, wherein the opening and/or the marker element and/or the arrangement thereof with respect to the main body identify at least one property of the implant.

36. (new) The implant of claim 14, wherein the opening and/or the marker element and/or the arrangement thereof with respect to the main body identify at least one property of the implant.

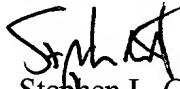
REMARKS

The above claims have been amended to more closely correspond them to United States claiming practice, namely, by removing multiple dependencies and providing proper antecedent basis.

These changes are not made to avoid prior art and do not narrow the scope of the claims, as measured from the literal translation of the German language claims. These amendments to the claims are fully supported by the literal translation into English of the specification as filed in Germany, and they do not introduce new subject matter.

The claims as amended are provided on clean sheets.

Respectfully submitted,



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